

Application Serial No. 09/381,143
Reply to Office Action of July 14, 2004

FATENT
Docket: CIJ-2003

REMARKS/ARGUMENTS

Claims 1-12 and 16-21 are pending in the present application before this amendment. Claim 1 has been amended, and Claim 6 has been cancelled without prejudice. No new matter has been added. Reconsideration is respectfully requested.

Claims 1-12 and 16-21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,935,249 (Stern). The "et al." suffix, which may appear after a reference name, is omitted in this paper.

In the last filed Response of April 27, 2004, it has been respectfully argued that withdrawal of the rejections is proper at least since no cited references teaches the claimed limitation of the "virtual message processor." The Office Action of February 28, 2004 has specifically admitted that "Stern reference fails to disclose the [claimed] virtual machine means that is emulatable in different computers having incompatible hardware[s] or operating systems" (see the Office Action of February 28, 2004 at page 2, Item 4).

However, the outstanding Office Action has contradicted its position and rejected the claims again based on the Stern reference alone this time. The outstanding Office Action indicates that Stern col. 6, lines 18-23 allegedly teaches the limitation --wherein the virtual machine means is emulatable in different computers having incompatible hardware or operating systems--.

Applicant respectfully points out again that Stern fails to teach the claimed "virtual machine means" that is "emulatable in different computers having incompatible hardware or operating systems." The cited Stern col 6,

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lines 18-23, describes merely a JavaOS being operable on different processors supporting the Java Virtual Machine.

The presently claimed virtual machine means is not just a JavaOS or a Java Virtual Machine. As recited in Claim 1 (now further amended), the claimed Virtual Machine Means comprises, inter alia, (1) the virtual function processor, (2) the message instruction means, and (3) the virtual message processor that performs several tasks, one of which being "comparing [of] the messages under the direction of the message instruction means that is arranged to provide directions for operation of the virtual message processor." Stern does not teach this claimed invention--the Virtual Machine Means--of Claim 1, now amended.

The amended Claim 1 is very consistent with the Applicant's statement that was faxed to the Examiner on July 1, 2004 per the Examiner request made during a telephonic Examiner interview of July 29, 2004:

"The comparison of messages is not the advance made by the inventor, the advance lies in that the messages are compared under the direction of the messages instructions of the virtual message processor [which is a part of the virtual machine means]"

Claim 1 has now been amended to incorporate this very distinguishing feature about the comparison of messages performed by the virtual message processor of the presently claimed invention. During the interview of July 29, 2004, it has been indicated by the Examiner that he would consider the comparison function of the presently claimed invention to be novel and, on this ground, had requested further clarification on this aspect of the claimed invention. The clarification provide in response is that the novelty lies in that the messages are

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compared under the direction of the messages instructions of the virtual message processor which is a part of the virtual machine means. The amended Claim 1 in this paper now fully and clearly recites this very distinguishing feature, and, on this ground alone, Applicant respectfully submits that Claim 1 should be considered to be in condition for allowance.

Further, Claim 1 has been further limited with the feature of pending Claim 6 that "the message instruction means includes a set of descriptions of message data."

Referring to the discussion of FIG. 11 at the Specification page 25 the message instruction means of the presently claimed invention includes a set of descriptions of message data. The descriptor 121 designates the characteristic to be applied to the information in a particular field of a message. This approach to processing messages is not at all seen in Stern.

The outstanding Office Action, Item 7 points to Stern col. 7, lines 59-62, and col. 8, lines 10-16, to indicate that Stern allegedly discloses a "set of descriptions of message data." However, this characterization of Stern is totally incorrect. Stern col. 7, lines 59-62, explains how host computer can access messages received from the Java Enabled Network Interface Device even when the host computer is disconnected from network 506. Stern provides absolutely no teaching of message data to control processing of messages.

Stern col. 8, lines 10-16, discusses how the network accesses the Java Enabled Network Interface Device through pre-defined port numbers at the IP address of the host computer. Stern again provides absolutely no teaching of

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providing descriptions of message data to control processing of messages.

For the reasons above, Stern fails to teach or suggest Claim 1, presently amended.

Applicant again respectfully disagrees with the assertions in the Office Action, in particular, that Stern teaches the claimed "virtual message processor" (which is a part of the claimed "virtual machine means"). Applicant respectfully reasserts the remarks made in the previous amendments that Stern only discusses the use of "standard discrete chipsets or other circuit devices." The claimed virtual processor is distinguished from a chipset or a circuit device such as in Stern, because Stern teaches use of physical devices and therefore cannot teach a message processor that is "virtual," i.e., all in the realm of software.

As disclosed in the Specification page 10, line 29 to page 11, line 1, the software of the preferred embodiment of the present application includes "three layers of virtual machine software (the HW drive layer, the Hardware Abstraction Layer, and the Virtual Machine Processor Layer) and a software application."

The Virtual Machine Processor Layer shown in FIG. 2, element 103, includes, inter alia, a virtual function processor includes a virtual message processor 105 and a protocol processor 106, "implemented in software code" (the Specification page 18, lines 33-35).

In contradistinction, nowhere in Stern (or in any other cited references) discloses the claimed virtual message processor that carries out the presently claimed task of --assembling the messages, disassembling messages and

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comparing the messages under the direction of the message instruction means that is arranged to provide directions for operation of the virtual message processor-- as in Claim 1, now amended.

The cited Stern reference is assigned to Sun Microsystems, the creator of the Java programming language. One important feature of the Java language is that it can be interpreted by a Java Virtual Machine. Different versions of Java Virtual Machine are produced to interface with different underlying processors and operating systems. Thus, a program written in Java language may run on a variety of computers each having incompatible hardware or operating systems, and each running a Java Virtual Machine. Similar aspects of this type of a virtual machine has been described in the Specification, page 6, at the top.

However, the communication device as described and presently claimed is quite significantly different from the Java Virtual Machine of Stern, because the presently claimed invention includes a dedicated **virtual message processor**, which function is to perform generic handling of messages.

Applicant respectfully submits that Java Virtual Machine does not include such claimed dedicated virtual message processor. The addition of such a claimed message processor represents an additional component that must be added to any known Java Virtual Machine. This introduction of the dedicated virtual message processor in the presently claimed invention provides quite substantially different handling of the messages than in any known Java Virtual Machine. In other words, the Java language takes a different approach than the functions of the presently claimed invention that includes a dedicated message

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processor.

The Office Action cites Stern col. 6, line 53 to col. 7, lines 6 (and FIG. 4) as disclosing the claimed virtual function processor and the claimed virtual message processor. However, the cited passages of Stern as shown in FIG. 4 discloses the hardware environment in which a Java Virtual Machine can run on. The other parts of Stern reference (such as cols. 6-10), as understood, describe the interface and/or traffic control aspect of a Java Virtual Machine in a network environment.

Stern fails to teach the claimed dedicated "virtual" message processor when, for example, called by the "virtual" function processor carry out the task of assembling, disassembling and comparing messages, whereby when a message is required to be handled by the communications device the message processor is called to carry out the message handling task.

As stated in the Specification page 7, providing a separate virtual message processor allows for "faster, simpler programming." Stern does not teach the provision of the claimed virtual machine with a dedicated virtual message processor. That is, if a Java Virtual Machine as described in Stern is used to perform messaging, each application developed would be required to adjust to the characteristics of the different devices that the application was to execute on, such as screen width and fonts.

The claimed virtual message processor removes this burden from the development of the application and places it on the software platform that resides on the device. This relieves the application developers of the burden of

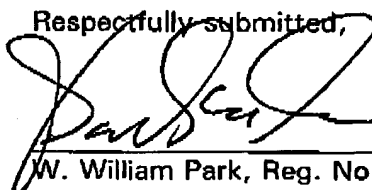
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programming to the physical characteristics of the platform that application will execute on.

For the reasons set forth above, Applicant respectfully submits that Claims 1-6, 8-12 and 16-21 pending in this application are in condition for allowance over the cited references. This amendment is considered to be responsive to all points raised in the Office Action. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections and earnestly solicits an indication of allowable subject matter. Should the Examiner have any remaining questions or concerns, the Examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,



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